IN THE SPECIFICATION:

Please replace the abstract with the following abstract:

An apparatus and method to makes debugging of cyclically executed control

programs more convenient in a control system by providing a special support structure. To

this end, the control program is compiled into a microprocessor-independent intermediate

code. This intermediate code is loaded into the runtime system RS and is compiled there into

the microprocessor code. Area details about code areas needing to be examined are stored in

a dedicated data storage unit and are mapped onto areas of machine code using debug

functionality in the engineering system and in the runtime system.